

FUKUDA et al. -- 10/732,811
Attorney Docket: 041283-0307179

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously presented) A fluid machinery including a sliding mechanism comprising one side member composed, in combination, of a metallic base member having a sliding surface and a lubrication film formed on the sliding surface in a close contact thereto, and a counterpart side member containing fluorocarbon resin in an amount of at least 50 wt.%, said lubrication film including a solid lubricant having a self-lubrication property and a binder of resin material, wherein said metallic base member is formed of aluminum alloy and a hard film, which is formed of any one of alloy materials of Ni-P, Ni-B and Ni-P-B having a nickel content of at least 80 wt.%, is applied to a portion between the metallic base member of the aluminum alloy and the lubrication film containing the solid lubricant.
2. (Original) A fluid machinery according to claim 1, wherein said resin material for the binder comprises epoxy resin.
3. (Original) A fluid machinery according to claim 1, wherein said resin material for the binder comprises polyamideimide resin.
4. (Original) A fluid machinery according to claim 1, wherein said solid lubricant contains at least one selected from the group consisting of graphite, molybdenum disulfide, boron nitride, antimony oxide and mica.
5. (Canceled)
6. (Previously presented) A fluid machinery according to claim 1, wherein said aluminum alloy has a Rockwell hardness of at least 60.
7. (Canceled)

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8. (Previously presented) A fluid machinery including a sliding mechanism comprising one side member composed, in combination, of a metallic base member having a sliding surface and a lubrication film formed on the sliding surface in a close contact thereto, and a counterpart side member containing fluorocarbon resin in an amount of at least 50 wt.%, said lubrication film including a solid lubricant having a self-lubrication property and a binder of resin material, wherein said metallic base member is formed of aluminum alloy, and said counterpart side member constitutes a sealing unit on a movable member side and is composed of the fluorocarbon resin of 50 wt.% and a balance including either one of a fiber reinforced material and a filling material.
9. (Original) A fluid machinery according to claim 8, wherein said filling material is an organic material.
10. (Original) A fluid machinery according to claim 1, wherein said sliding mechanism is operated under a condition without lubricant oil supply.
11. (Original) A fluid machinery according to claim 1, wherein said sliding mechanism comprises a movable seal unit slidable in contact to a component of the fluid machinery so as to provide a sealing function.
- 12.-15. (Canceled)
16. (Previously presented) A fluid machinery comprising:
a helical mechanism constituting a helical compressor including a cylinder in which a sliding mechanism comprising a roller and a helical blade is arranged;
a driving unit operatively connected to the helical compressor to drive the same; and
an Oldham ring provided for preventing a revolution of the roller of the sliding mechanism,
said sliding mechanism comprising one side member composed, in combination, of a metallic base member having a sliding surface and a lubrication film formed on the sliding surface in a close contact thereto, and a counterpart side member containing fluorocarbon resin in an amount of at least 50 wt.%, said lubrication film including a solid lubricant having

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a self-lubrication property and a binder of resin material and a hard film, which is formed of any one of alloy materials of Ni-P, Ni-B and Ni-P-B having a nickel content of at least 80 wt.%, is applied to a portion between the metallic base member of the aluminum alloy and the lubrication film containing the solid lubricant.

17. (Previously presented) A fluid machinery according to claim 8, wherein said resin material for the binder comprises epoxy resin.

18. (Previously presented) A fluid machinery according to claim 8, wherein said resin material for the binder comprises polyamideimide resin.

19. (Previously presented) A fluid machinery according to claim 8, wherein said solid lubricant contains at least one selected from the group consisting of graphite, molybdenum disulfide, boron nitride, antimony oxide and mica.